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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/643,917  | 08/20/2003  | Tsuneo Kagotani      | 116900              | 4775             |
| 25944   | 7590        | 06/28/2006           | EXAMINER            |                  |
| OLIFF & BERRIDGE, PLC<br>P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |             |                      | MCPHERSON, JOHN A   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1756                |                  |

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/643,917             | KAGOTANI ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | John A. McPherson      | 1756                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 April 2006.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-6 is/are pending in the application.
  - 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 12/01/05
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of Group I-A, claims 1-3 in the reply filed on 4/13/06 is acknowledged. The traversal is on the ground(s) that the subject matter of all claims is sufficiently related that a through search for the subject matter of any one group would encompass a search for the subject matter of the remaining claims. This is not found persuasive with respect to Groups I-C and II, because the search for the subject matter of these claims is not required for Group I-A. However, the Examiner agrees that Group I-B (claim 4) could be searched with elected Group I-A without a serious burden. Accordingly, both Groups I-A and I-B (claims 1-4) have been examined for this Office Action.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 5 and 6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 4/13/06.

***Drawings***

3. Figure 3B and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

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abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-056514 [reference 1 of the Information Disclosure Statement filed 12/1/05] (JP '514) in view of Applicants' discussion of the prior art in the specification. JP '514 discloses a process of making a MR component comprising the steps of patterning a wafer so as to form "rovers" (i.e. bars) each comprising thirty MR components, cutting the "rovers" from the wafer, and polishing the thirty MR elements, wherein the pattern formation is carried out by one-shot exposure considering four "rovers" as one unit (i.e. one exposure region completely encompasses four MR bars). See paragraphs [0022]-[0024] and Figures 1-2. However, JP '514 does not teach utilizing alignment marks to correct the exposure position for each exposure region. In the discussion of the prior art in the specification, Applicant acknowledges that it is

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known in the art to utilize alignment marks to form exposure correction regions when patterning MR element bars on a wafer. See page 12, lines 12-16 of the specification and Figure 3B. It would have been obvious to one skilled in the requisite art to utilize alignment marks to correct exposure positions on a wafer when patterning MR element bars because it is known in the art that utilizing alignment marks provides for the formation of exposure regions in desired positions on the wafers.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-056514 (JP '514) in view of Applicants' discussion of the prior art in the specification, further in view of US 2002/0013996 to Okada et al. (Okada). The disclosure of JP '514 in view of Applicant's discussion of the prior art is discussed above in paragraph 4. However, with respect to claim 3, neither JP '514 nor Applicant's discussion of the prior art disclose utilizing electron beam exposure for patterning the MR element bars. Okada discloses a method for making a thin film magnetic head comprising patterning a frame which is used for forming a rear position from a negative resist or an electron beam resist. See the abstract; and paragraphs [0023] and [0035]. It would have been obvious to one skilled in the requisite art to utilize electron beam exposure, as taught by Okada, in the process of JP '514 in view of Applicant's discussion of the prior art because it is taught that an electron beam is an art-recognized equivalent to light from forming resist patterns when making thin film magnetic heads.

***Pertinent Prior Art***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,003,223 discloses a method for aligning step and repeat reticle images for adjacent sliders for MR devices, comprising the step of forming three wafer alignment targets for two adjacent sliders, wherein a common alignment target is provided between the two sliders.

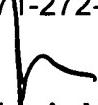
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John A. McPherson  
Primary Examiner  
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JAM  
6/19/06